

State Route 37 Interim Project – Sears Point to Mare Island



**Air Quality Conformity Task Force Presentation
May 27, 2020**

Primary Land Uses Near SR 37

- Tidal marsh (San Pablo Bay lands).
- Little to no development adjacent to SR 37 between Mare Island and SR 121.
- Lands are predominantly open space or agricultural.
- Few trip generators in the project area.
- More developed land uses are to the:
 - West in Novato,
 - East in Vallejo, or
 - North in Sonoma.
- The Sears Point Raceway is the largest trip generator near the Project.
 - Periodic race events, including weekends



Purpose and Need

Purpose:

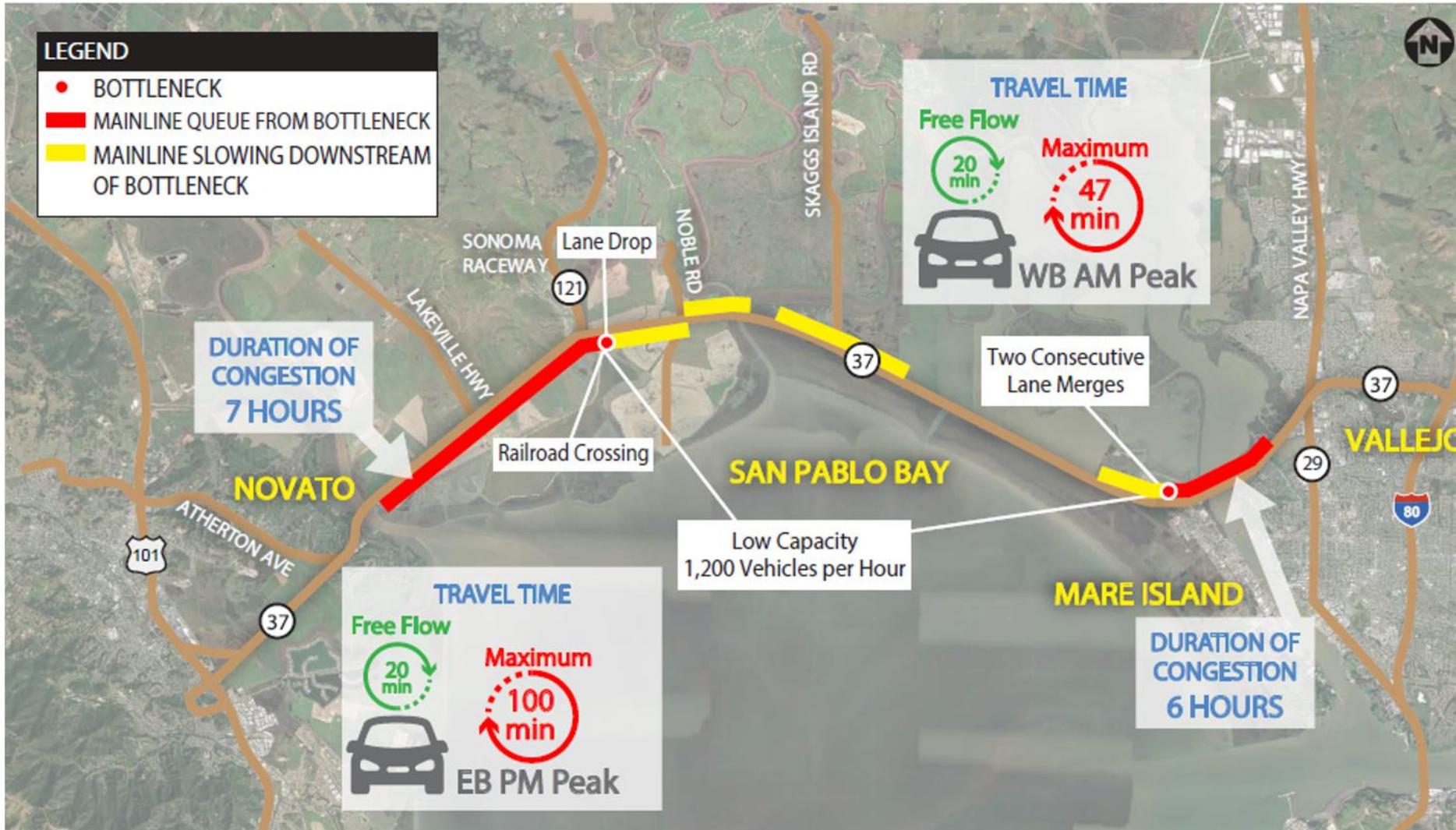
To improve traffic flow and peak travel times, and increase vehicle occupancy, between Mare Island and State Route 121.

Need:

The corridor experiences substantial traffic congestion where the highway lanes merge to one lane in each direction.

Congestion results in peak period traffic delays and backups that occur in both directions during the weekday morning and evening commute periods, and during weekend, holidays, and special events.

The Corridor Experiences Severe and Extended Traffic Congestion



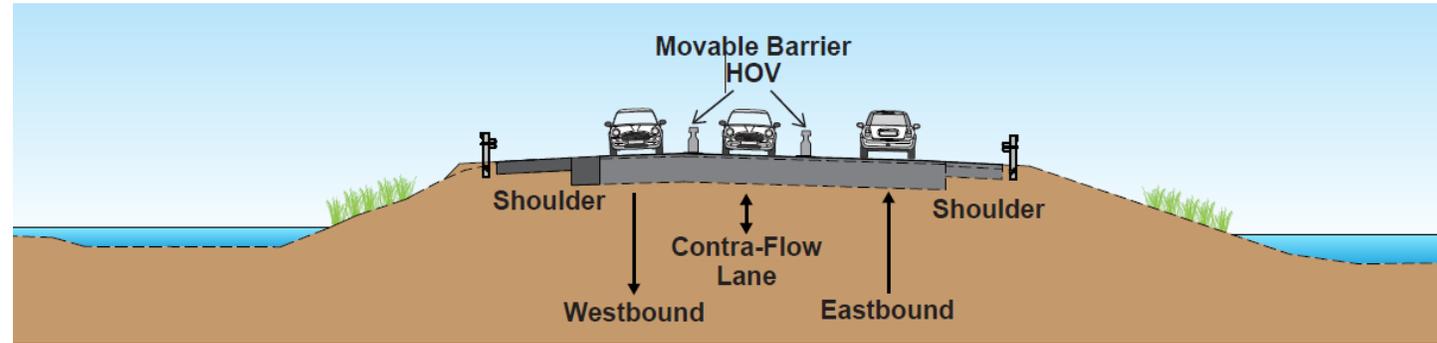
- **6 Hours** of Congestion During Weekday AM Commute (Westbound)
- **7 Hours** of Congestion During Weekday PM Commute (Eastbound)
- **Weekend** Congestion Throughout Most of the Day

Project Description

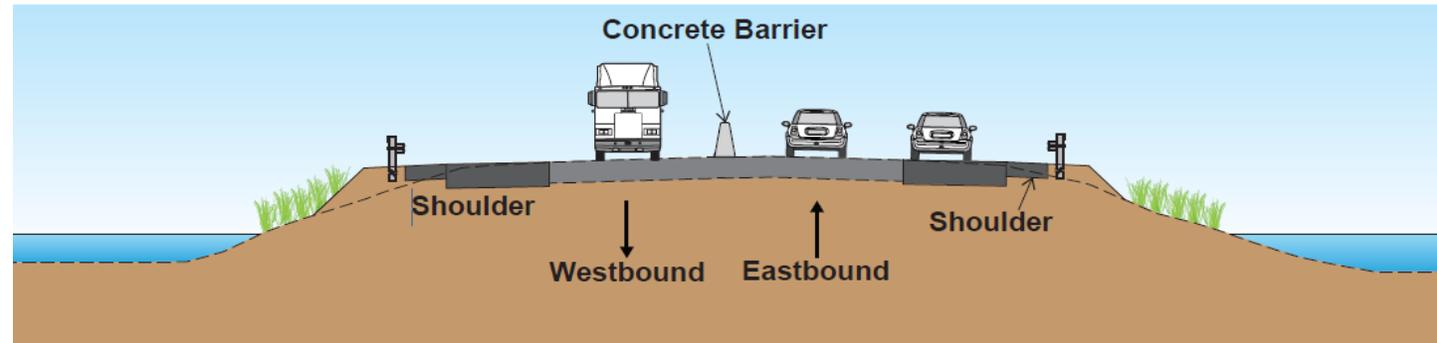
- The project will add either one or two lanes to SR 37 between State Route (SR) 121 and Mare Island. There are four build alternatives under consideration, two of which would add one HOV lane that would be reversible and open in the peak direction during the peak period only, and two alternatives that would add one HOV lane in each direction.
- The proposed new lane(s) will be designated for HOV use during peak periods.
- The project is expected to reduce travel time by reducing the congestion that originates where the existing lanes drop from two to one lane in each direction.
- Tolling of all lanes will be considered for this segment of the highway, with incentives for multi-occupant vehicles. Tolling on this highway will require separate approvals.

Project Alternatives

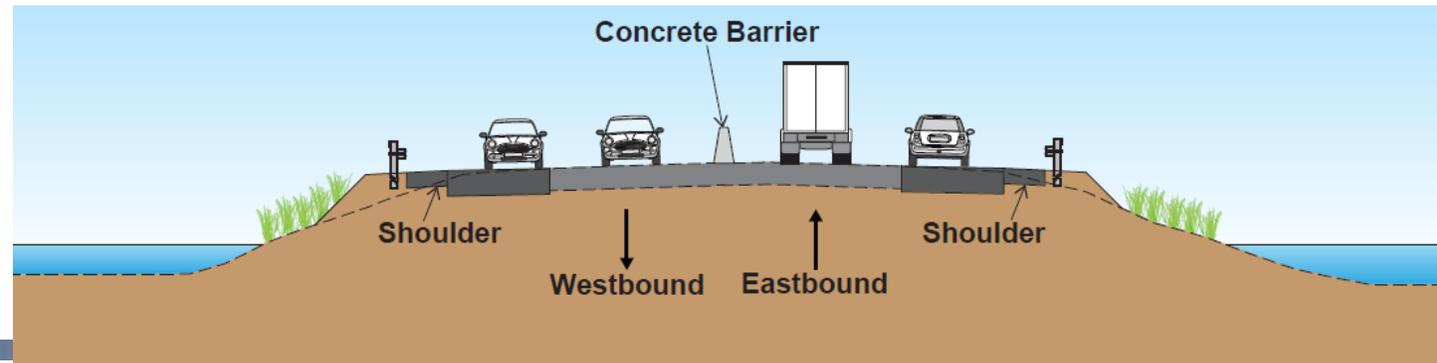
Alternative 1: 3-Lane
Contra-Flow (HOV Lane)
with Movable Median
Barriers



Alternative 2: Part-Time
Use HOV Lanes



Alternative 3A and 3B: 4-
Lane Highway (with HOV
Lanes)



Summary of Traffic Data – Opening Year (2025)

Opening Year: 2025	AADTs			Trucks					
	2025 No-Build	2025 Build Alts 1 & 2	2025 Build Alt 3	2025 No-Build		2025 Build Alts 1 & 2		2025 Build Alt 3	
				%	AADT	%	AADT	%	AADT
<u>SR37: Mare Island to SR121</u>									
WB	17,344	17,705	18,052	6.4%	1,102	6.4%	1,125	6.4%	1,147
EB	17,526	17,891	18,242	6.6%	1,150	6.6%	1,174	6.6%	1,197
TOTAL	34,870	35,596	36,294		2,252		2,299		2,344

Summary of Traffic Data – RTP Horizon Year (2040)

RTP Horizon Year: 2040	AADTs			Trucks					
	2040 No-Build	2040 Build Alts 1 & 2	2040 Build Alt 3	2040 No- Build		2040 Build Alts 1 & 2		2040 Build Alt 3	
				%	AADT	%	AADT	%	AADT
<u>SR37: Mare Island to SR121</u>									
WB	19,394	20,837	22,230	6.4%	1,232	6.4%	1,324	6.4%	1,412
EB	19,598	21,056	22,463	6.6%	1,286	6.6%	1,382	6.6%	1,474
TOTAL	38,992	41,893	44,693		2,518		2,706		2,886

Summary of Traffic Data – Design Year (2045)

Design Year: 2045	AADTs			Trucks					
	2045 No-Build	2045 Build Alts 1 & 2	2045 Build Alt 3	2045 No-Build		2045 Build Alts 1 & 2		2045 Build Alt 3	
				%	AADT	%	AADT	%	AADT
<u>SR37: Mare Island to SR121</u>									
WB	20,078	21,882	23,622	6.4%	1,275	6.4%	1,390	6.4%	1,501
EB	20,289	22,111	23,870	6.6%	1,332	6.6%	1,451	6.6%	1,567
TOTAL	40,367	43,993	47,492		2,607		2,841		3,068

Vehicle Miles of Travel (VMT) Analysis

Scenarios	Daily VMT	Annual VMT
2040 No Build	175,174,532	63,938,704,180
2040 With Project and No Tolling	175,212,926	63,952,717,956
Difference	38,394	14,013,776
% Difference	0.02%	0.02%
2040 With Project and Westbound-Only Tolling	175,128,330	63,921,840,323
Difference	-46,202	-16,863,857
% Difference	-0.03%	-0.03%
2040 With Project and Two-Way Tolling at 50% Toll Rate	175,148,156	63,929,076,828
Difference	-26,376	-9,627,352
% Difference	-0.02%	-0.02%

Not a Project of Air Quality Concern:

- The project would reduce congestion on this route.
- The new lanes would be for HOV use during peak periods.
- The project would not add capacity for trucks during peak periods.
- The HOV designation will provide a travel time saving, providing an incentive to increase multiple occupant vehicle use during peak periods.
- Currently no incentive for a bus route on SR 37 because of the substantial delays and there are no current transit routes using SR 37.
- The Napa Bus Feasibility Study identified a demand for bus service through the corridor, and this project could provide the increased travel time reliability that transit service depends upon.
- The project would improve travel speeds and reduce the rate of particulate emissions compared with the No Build alternative.

Questions and Discussions

For Additional Information, contact:

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SOL 12 Rio Vista Resurfacing, Restoration, Rehabilitation (3R) Project

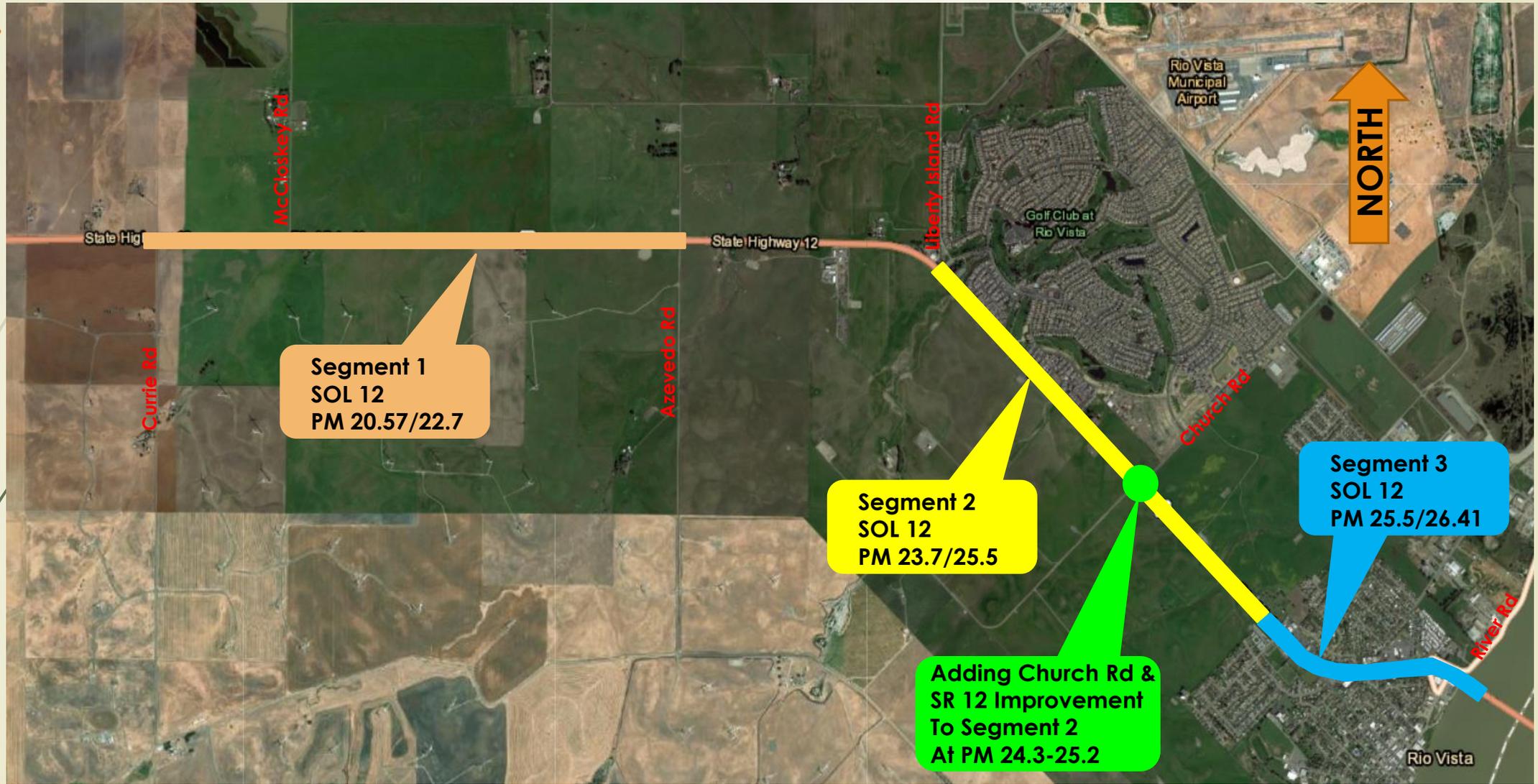
MTC Air Quality Conformity Task Force Meeting on May 27, 2021

Location: Virtual Meeting

CALIFORNIA DEPARTMENT OF TRANSPORTATION, DISTRICT 4

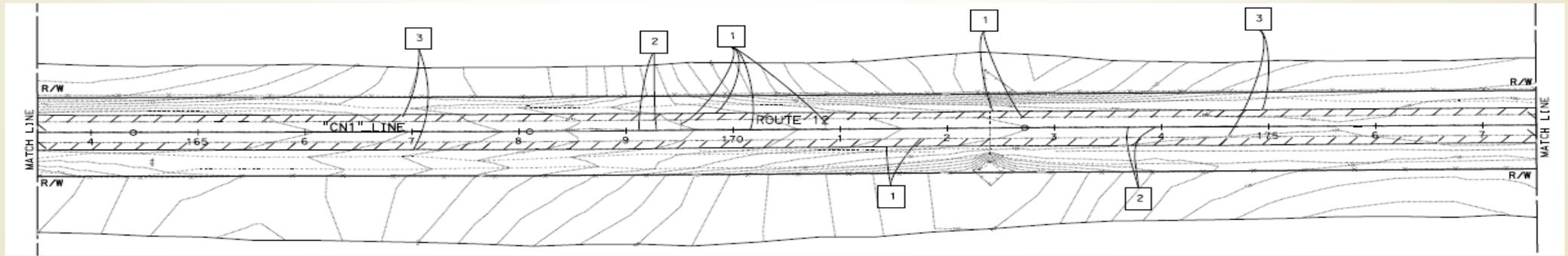
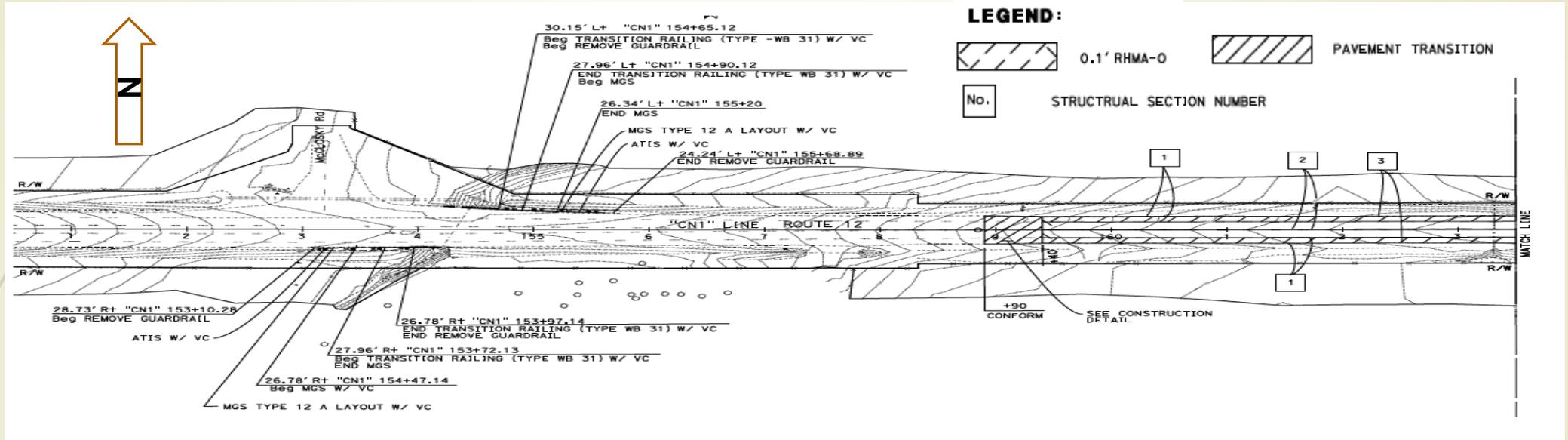
111 Grand Avenue, Oakland, CA 94612

PROJECT LOCATION



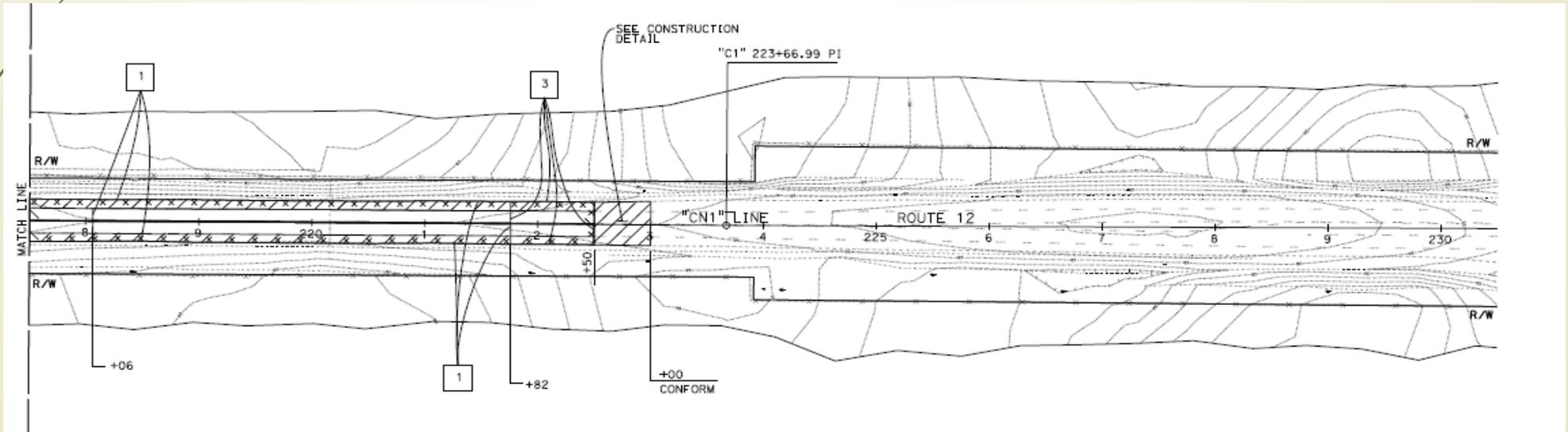
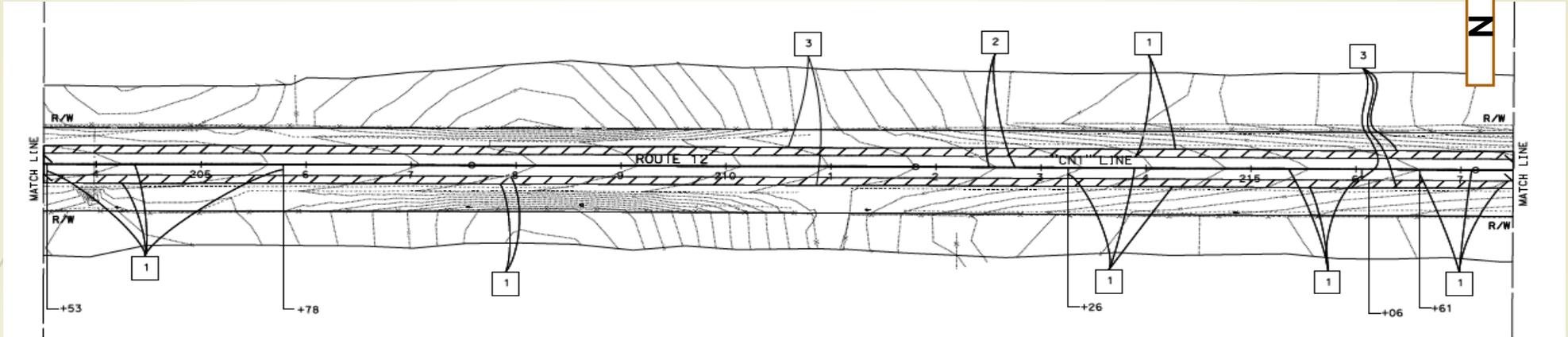
Vicinity Map

PROPOSED SEGMENT 1 IMPROVEMENT



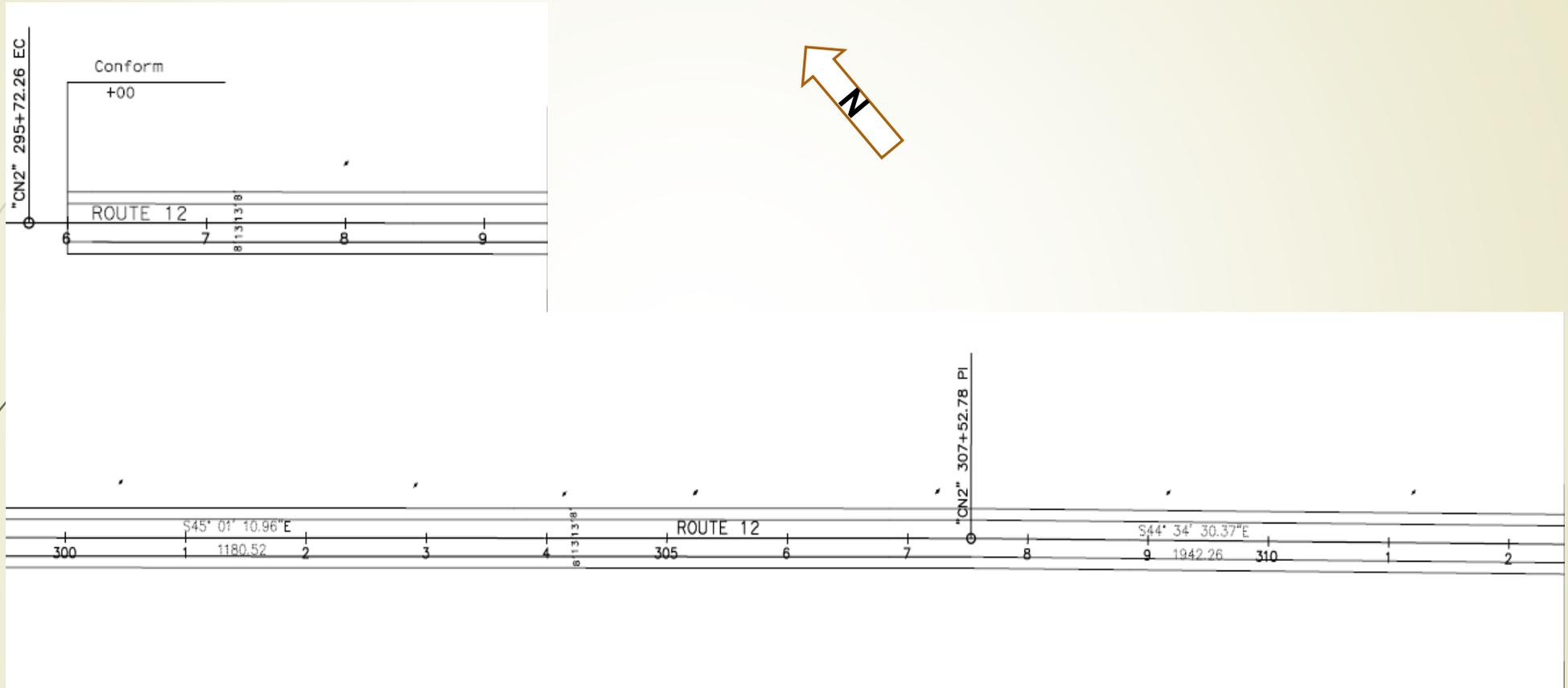
Plan View

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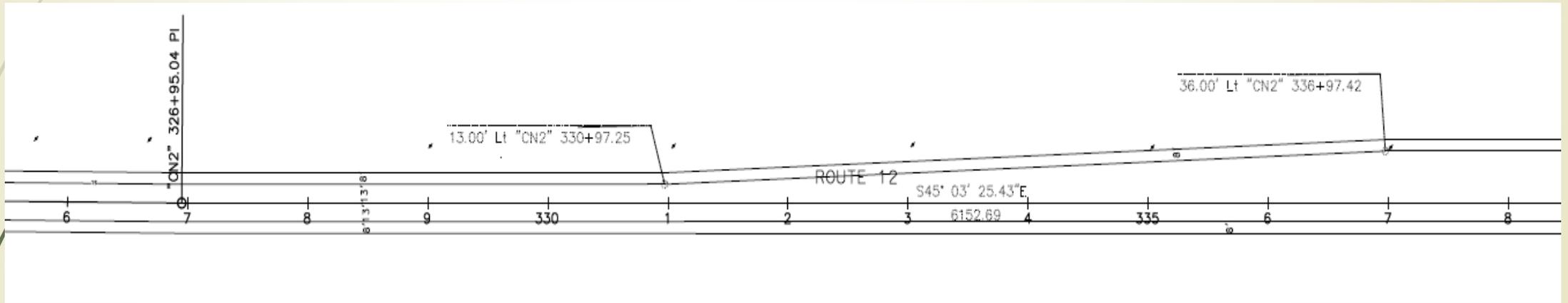
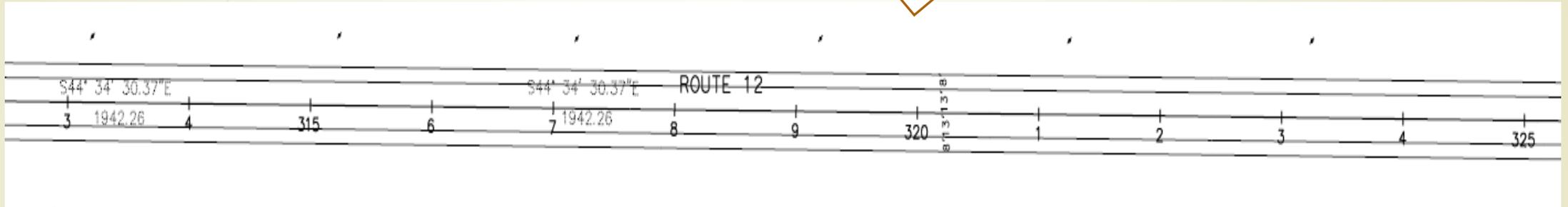
Plan View

PROPOSED SEGMENT 2 IMPROVEMENT



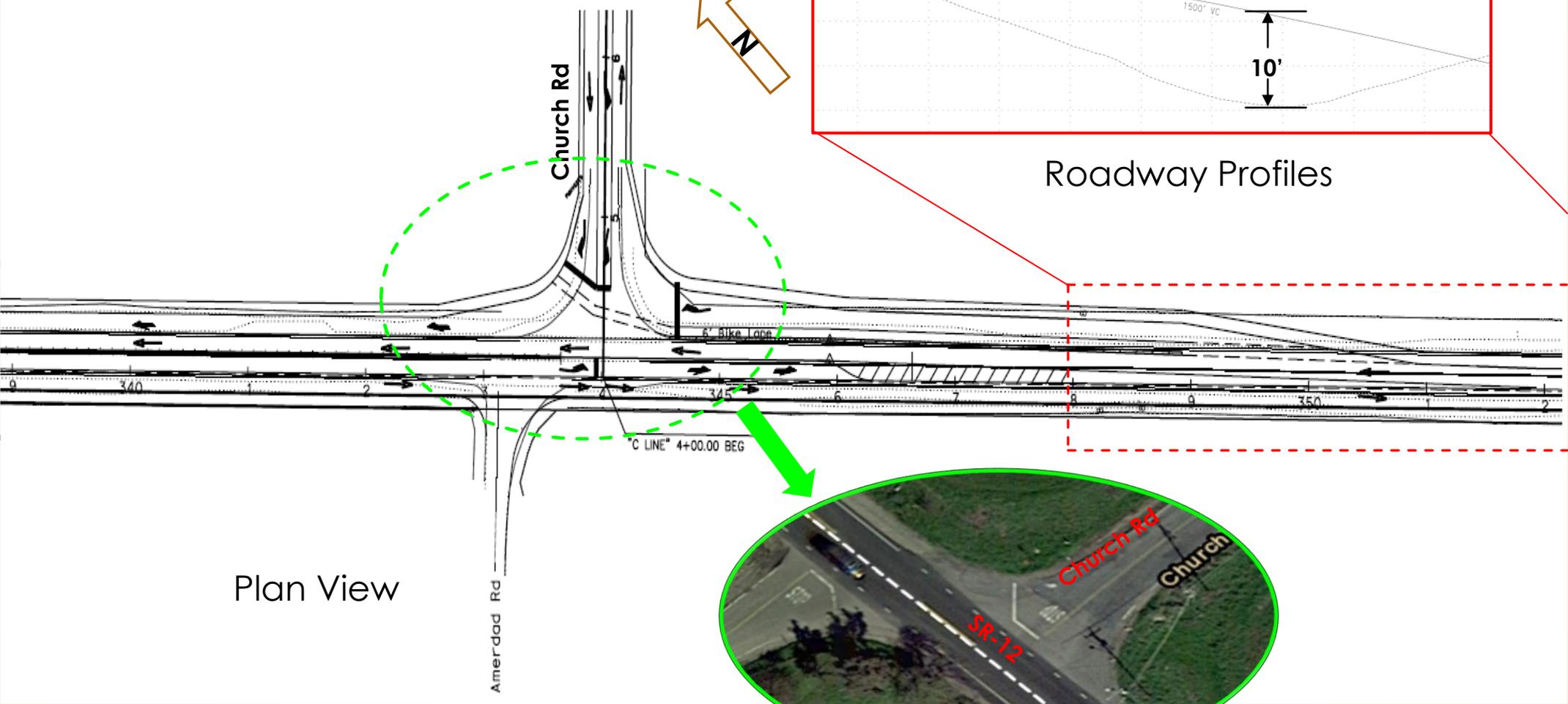
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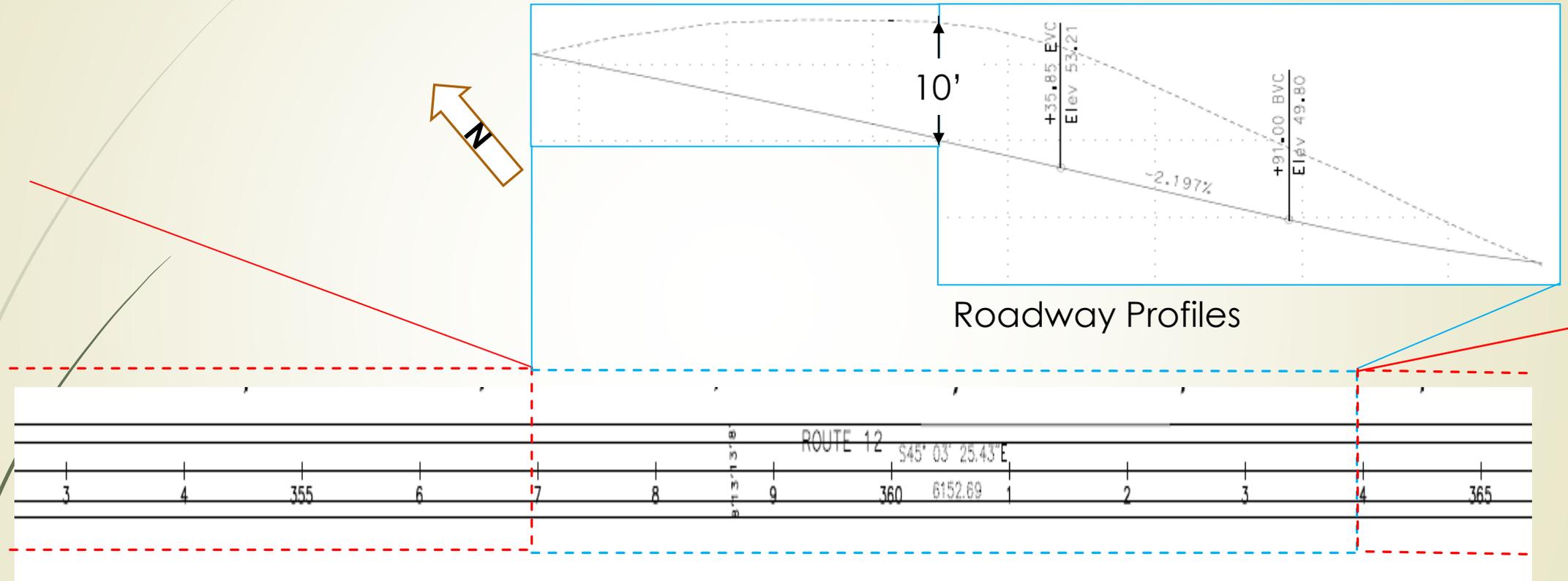
Plan View

Roadway Profiles



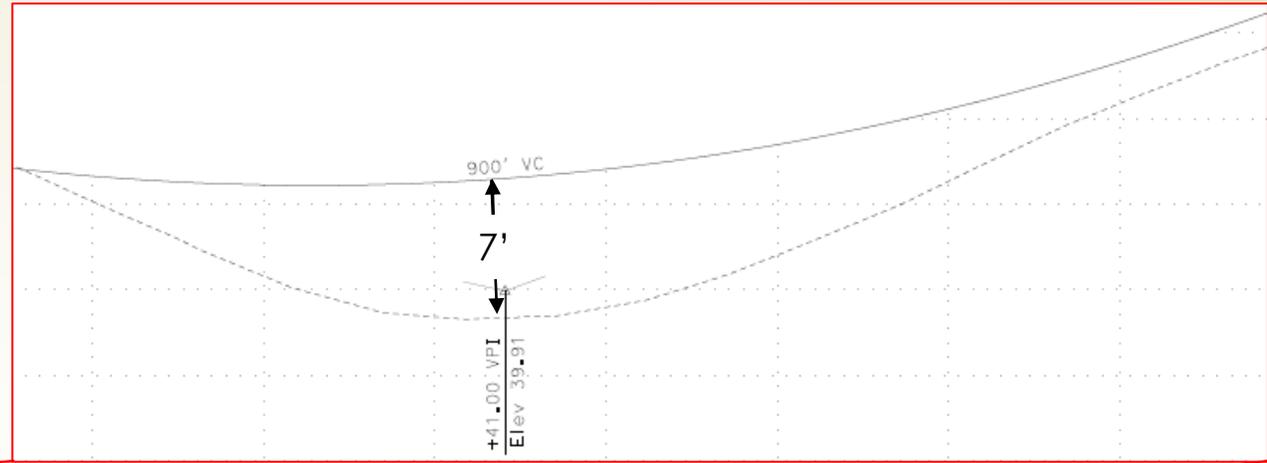
Existing Church Rd/SR12 Intersection

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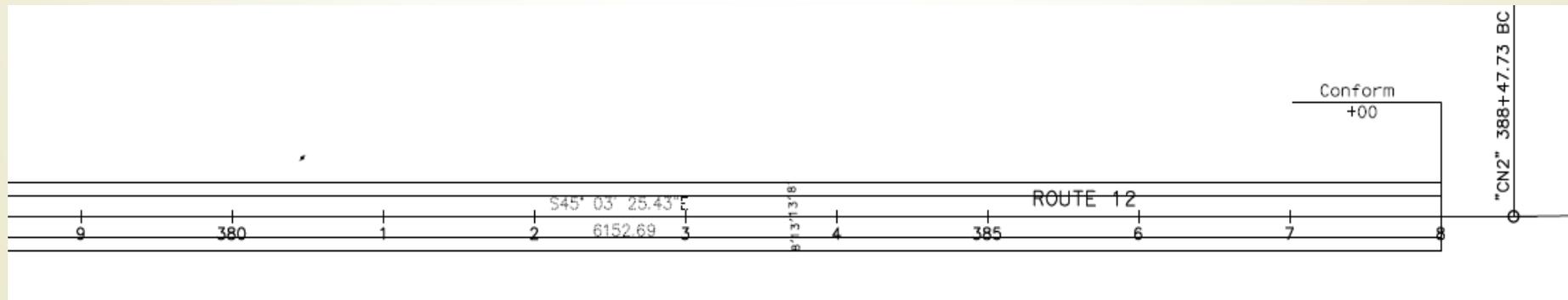


Plan View

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Roadway Profiles



Plan View

PROPOSED SEGMENT 3 IMPROVEMENT

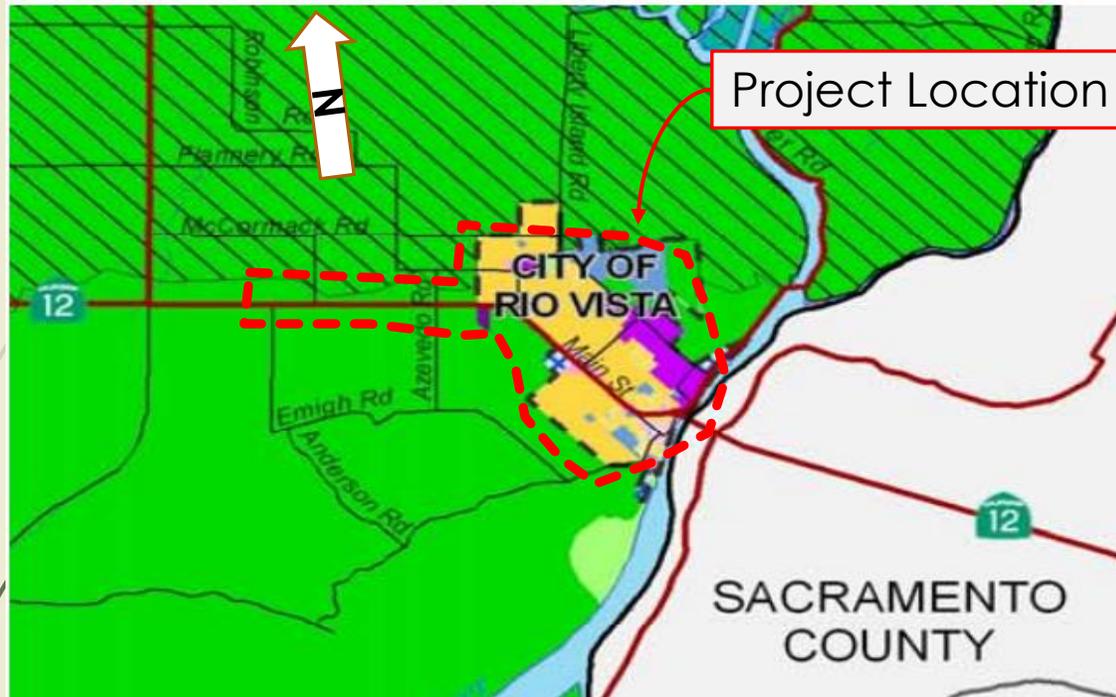


LEGEND:

- PROPOSED ROADWAY
- PROPOSED SIDEWALK
- PROPOSED SHOULDER
- PROPOSED CLASS II BIKE LANE
- PROPOSED CLASS IV BIKE LANE
- REGRADED DRIVEWAY
- PROPOSED ISLAND
- PROPOSED ROADWAY WIDENING

Plan View

LAND USE



- Existing Land Uses in the vicinity of proposed project are primarily:
 - ❖ Agriculture
 - ❖ Rural and Urban Residential
 - ❖ Commercial (Ex. Hotel, Restaurants...)
 - ❖ Urban Industrial (Ex. Steel Welding and Fabrication...)
 - ❖ And etc.

Residential Designations

- Rural Residential
- Traditional Community - Residential
- Traditional Community - Mixed Use
- Urban Residential

Agricultural Designations

- Watershed
- Agriculture

Commercial Designations

- Neighborhood Commercial
- Neighborhood Agricultural/Tourist Center
- Commercial Recreation
- Service Commercial
- Highway Commercial
- Urban Commercial

Industrial Designations

- General Industrial
- Limited Industrial
- Water Dependent Industrial
- Urban Industrial

PURPOSE AND NEED

- ▶ **Purpose:** The purpose of this project is to rehabilitate SR12 in three segments from PM 20.57 to 26.41 to enhance highway safety and ride quality for users; improve drainage efficiency; satisfy ADA compliance requirements in downtown of the City of Rio Vista; and incorporate complete streets design elements in downtown of the City of Rio Vista. Caltrans will update all non-standard shoulders, nonstandard travel lanes, non-standard vertical sight distances, and non-standard cross slopes to meet updated standards to increase highway safety.
- ▶ **Need:** The project is needed because segments of existing pavement of SR 12 within the project limits has alligator pavement cracking and non-standard shoulders, non-standard travel lanes, non-vertical sight distances, and non-standard cross slopes. Additionally, downtown of the City of Rio Vista experiences periodic flooding and lacks ADA compliant facilities.

PROJECT DESCRIPTION

- ▶ The proposed project is to rehabilitate SR 12 in three segments:
 1. Segment 1 (PM 20.57-22.7) & 3 (PM 25.5-26.40):
 - The current roadway geometry will remain unchanged
 - The existing roadway pavement will be resurfaced and rehabilitated
 - The existing drainage facilities will be upgraded
 - The existing sidewalks will be upgraded to meet ADA standards (*segment 3 Only*)
 - The Rectangular Rapid Flashing Beacon will be installed at non-signalized ped crosswalks (*Segment 3 Only*)
 2. Segment 2 (PM 23.7-25.5):
 - The current roadway vertical alignment will be improved to meet the standard vertical curves for a design speed of 50 miles per hour.
 - The current roadway grade profiles on SR-12 will be raised or lowered in ranging of 0-10 feet

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- The existing two 10.5-foot travel lanes and 1-to-4-foot shoulders would be brought up to Caltrans standard of 12-foot-wide lane and 8-foot-wide shoulder, respectively.
- A 12-foot left-turn and right-turn lanes will be added at three intersection approaches associated with SR12 (eastbound and westbound) and Church Road
- A 12-foot deceleration and acceleration lanes will be added in westbound direction
- An 8-foot shoulders will be added along SR 12 (eastbound and westbound)
- A 4-foot shoulders along Church Road will be added in both directions

SUMMARY OF FORECASTED AADT FOR OPENING AND HORIZON YEARS

ROADWAY SEGMENT	EXISTING YEAR (2019)			OPENING YEAR (2025)			HORIZON YEAR (2040)		
	BUILD/NO BUILD			BUILD/NO BUILD			BUILD/NO BUILD		
	AADT	TRUCKS		AADT	TRUCKS		AADT	TRUCKS	
		%	#		%	#		%	#
SR 12	21,000	8.94%	1,878	22,300	8.94%	1,994	26,100	8.94%	2,333
Church Road	1,800	2.00%	36	1,910	2.00%	38	2,300	2.00%	46

PROJECT SCHEDULE

Current Programming Dates	Preliminary Engineering/ Environmental	Engineering	Right of Way	Construction
Start	July 2017	November 2019	November 2019	August 2022
End	November 2019	August 2022	August 2022	September 2024

CONCLUSIONS

- ▶ The SOL 12 Rio Vista 3R Project would improve both highway safety and ride quality for users.
- ▶ The SR 12 and intersections have low truck volumes.
- ▶ The project would not increase capacity or percentage of trucks in the area.
- ▶ This project should not be considered a project of air quality concern and, therefore, a PM2.5 hot-spot analysis for project-level conformity determination is not required.



QUESTIONS?



SR 92/ US 101 Interchange Improvement Project

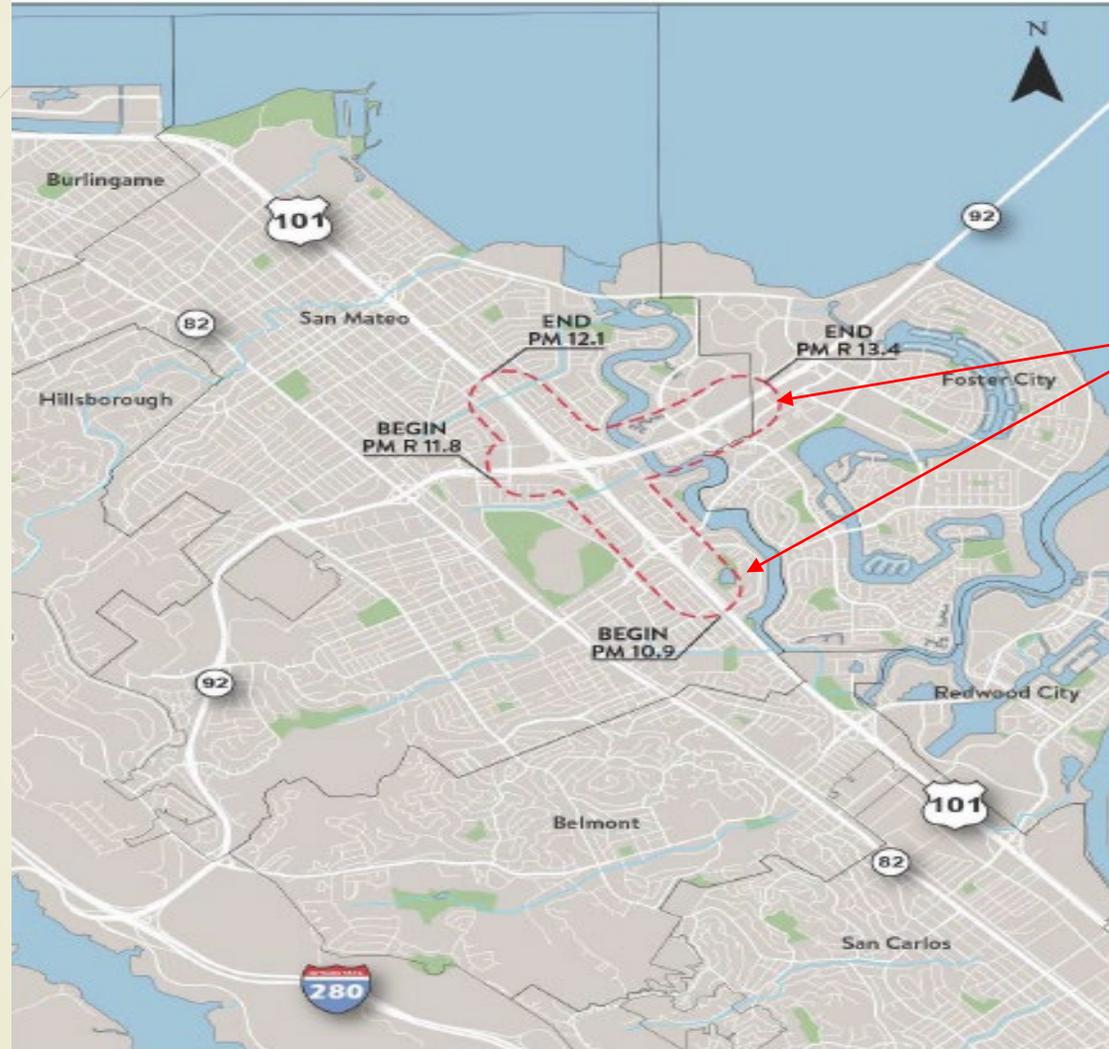
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Location: Virtual Meeting

CALIFORNIA DEPARTMENT OF TRANSPORTATION, DISTRICT 4

111 Grand Avenue, Oakland, CA 94612

PROJECT LOCATION



San Mateo County:
US-101: PM 10.9 – 12.1
SR-92: PM R11.8 – R13.4

Vicinity Map

SUMMARY OF IMPROVEMENT LOCATIONS



IMPROVEMENT 1: WB SR-92 TO SB US-101 LOOP RAMP AND STRUCTURE WIDENING



IMPROVEMENT 1
US101\SR92 Interchange Area Improvement Project (Short Term)
WB SR92 to SB US101 Ramp Improvements

1" = 100'



IMPROVEMENT 2: NB AND SB US-101 TO EB SR-92 MERCING AND RESTRIPIPING



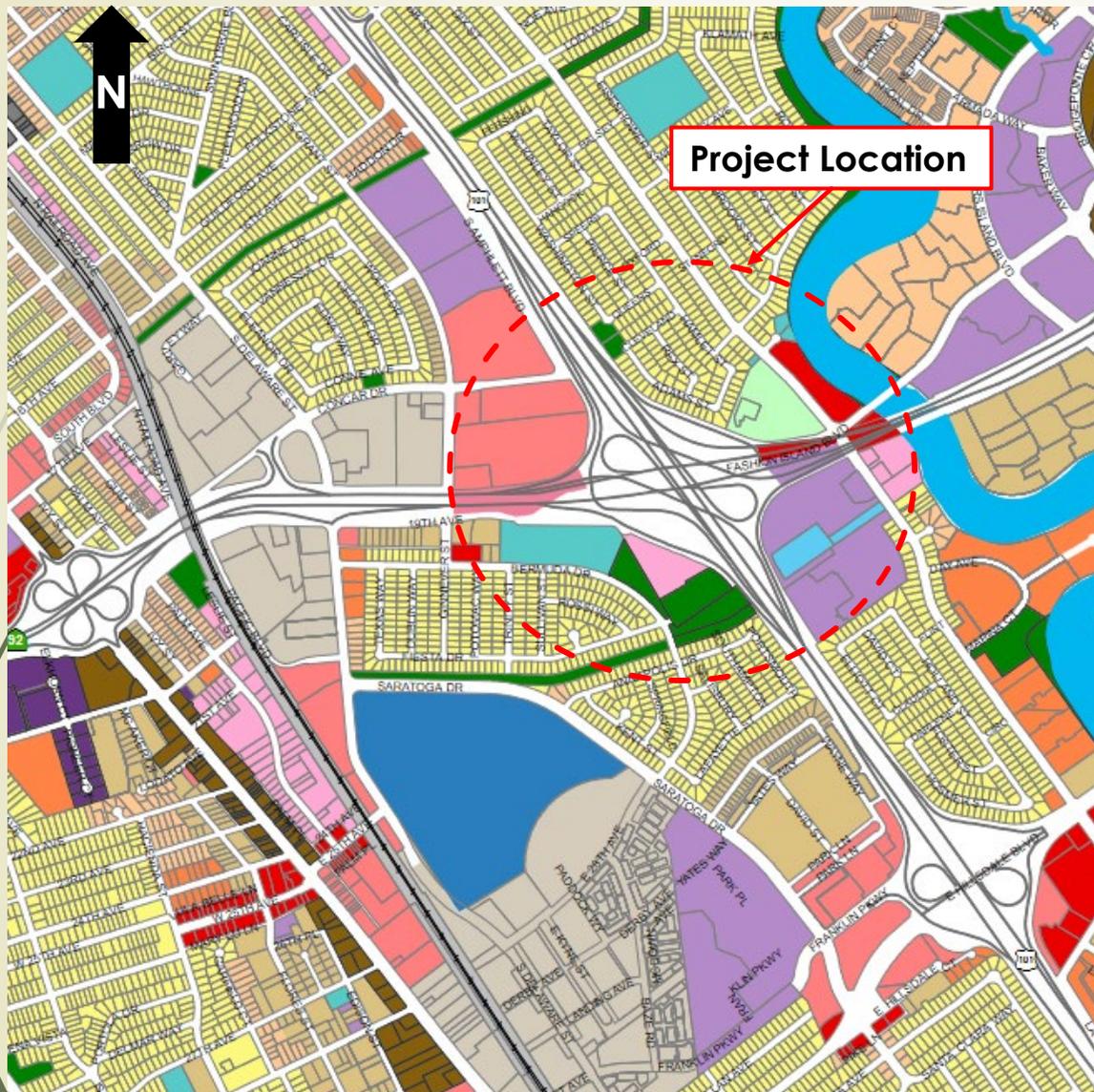
IMPROVEMENT 3: SB US-101 FASHION ISLAND OFFRAMP



IMPROVEMENT 4: NB US-101 HILLSDALE BLVD OFF-RAMP AND INTERSECTION MODIFICATION AND WIDENING

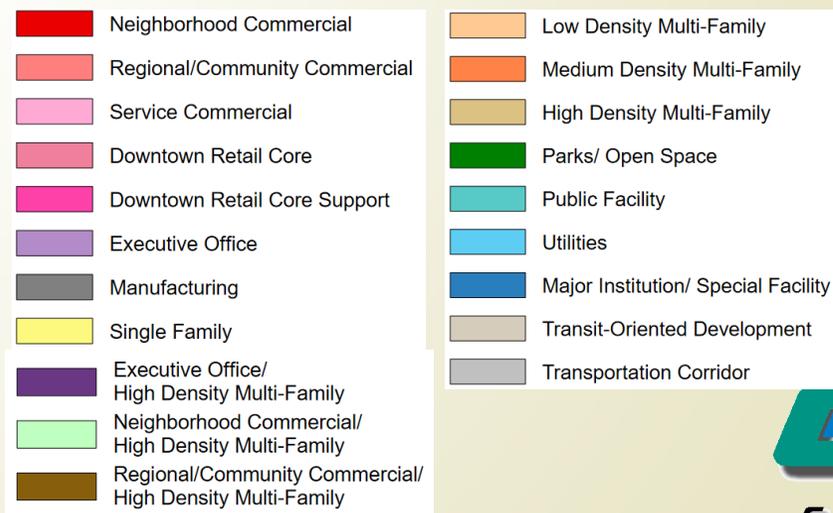


LAND USE



Existing Land Uses in the vicinity of proposed project are primarily:

- Single family housing
- Regional/community commercial and neighborhood commercial
- Parks/Open Space
- Executive Offices (Ex. Farmer's Insurance)
- Public facilities (Ex. the Caltrans 101/92 Park-and-Ride Lot)



PURPOSE AND NEED

- ▶ **Purpose:** Improve local access from US-101 and provide operational improvements at the US 101/SR 92 interchange ramps that reduce weaving conflicts and improve safety
- ▶ **Need:**
 - ❖ WB SR-92 to SB US-101 loop connector has inadequate capacity resulting in extended queues and no HOV lane designation to provide incentives carpool and bus use
 - ❖ EB SR-92 experiences heavy traffic volume and short merge from NB and SB US-101, resulting in extended delays and queues
 - ❖ SB US-101 to WB SR-92 connector ramp experiences high number of vehicles illegally crossing gore area to access Fashion Island Blvd off-ramp when obstructed by extended queuing from SB US-101 to EB SR-92
 - ❖ NB US-101 at Hillsdale Blvd exit ramp has inadequate storage capacity, resulting in extended queues and higher than average accident rate

PROJECT DESCRIPTION

- ▶ The proposed project includes the following improvements:
 1. Adding HOV lane and ramp metering at Westbound SR-92 and southbound US-101 loop ramp
 2. Adding merge lane (Auxiliary lane) from Northbound and southbound US-101 loop connectors to eastbound SR-92
 3. Moving the existing off-ramp exiting to the Fashion Island Blvd from EB SR-92 connector ramp to the WB SR-92 connector ramp
 4. Adding a right-turn lane from the NB US-101 off-ramp to Hillsdale Blvd and realigning the NB US-101 loop on-ramp to include a dedicated right-turn pocket

EXISTING YEAR (2020) TRAFFIC DATA

Roadway	Existing Year	AADT	% Truck	Truck AADT
NB US101	2020	140,430	3.49%	4,901
SB US101	2020	140,430	3.49%	4,901
EB SR92	2020	77,900	4.50%	3,506
WB SR92	2020	84,930	4.50%	3,822

OPENING YEAR (2025) TRAFFIC DATA

Roadway	Year	Alternative	AADT	% Truck	Truck AADT
NB US101	2025	No-Build/Build	144,035	3.49%	5,027
SB US101	2025	No-Build/Build	144,035	3.49%	5,027
EB SR92	2025	No-Build/Build	79,590	4.50%	3,852
WB SR92	2025	No-Build/Build	86,770	4.50%	3,905

HORIZON YEAR (2040) TRAFFIC DATA

Roadway	Year	Alternative	AADT	% Truck	Truck AADT
NB US101	2040	No-Build/Build	155,130	3.49%	5,414
SB US101	2040	No-Build/Build	155,130	3.49%	5,414
EB SR92	2040	No-Build/Build	84,760	4.50%	3,814
WB SR92	2040	No-Build/Build	92,400	4.50%	4,158

DESIGN YEAR (2045) TRAFFIC DATA

Roadway	Year	Alternative	AADT	% Truck	Truck AADT
NB US101	2045	No-Build/Build	158,825	3.49%	5,543
SB US101	2045	No-Build/Build	158,825	3.49%	5,543
EB SR92	2045	No-Build/Build	86,480	4.50%	3,892
WB SR92	2045	No-Build/Build	94,280	4.50%	4,243

PROJECT SCHEDULE

Current Programming Dates	Preliminary Engineering/ Environmental	Engineering	Right of Way	Construction
Start	June 2020	September 2021	March 2023	November 2023
End	September 2021	March 2023	August 2023	January 2025

CONCLUSIONS

- ▶ US-101/SR-29 Interchange Improvement Project would improve traffic operations and enhance freeway and highway safety in the project vicinity
- ▶ These segments of mainlines of US-101 and SR-92 have low truck volumes
- ▶ The proposed project would not increase capacity or the percentage of trucks in the area.
- ▶ This project should not be considered a project of air quality concern and, therefore, a PM2.5 hot-spot analysis for project-level conformity determination is not required.



QUESTIONS?